

a soil, wherein the concentration of calcium in the soil is from about 0.128 mM to about 5 mM and the pH is below about 7.0 until such time that the concentration of nickel in the above-ground tissues is over 1000 mg per kg gross dry weight of the above-ground tissues,

wherein the plant is cultivated in the soil.

14. (Twice Amended) A metal recovery culture, said culture comprising a nickel hyperaccumulating plant of the Alyssum genus having (1) a concentration of nickel in its above-ground tissues of over 1000 mg per kg gross dry weight of the above-ground tissues, and (2) a concentration in its above-ground tissues of at least one other metal selected from the group consisting of Co, Pd, Rh, Ru, Pt, Ir, Os and Re, and

a soil, wherein the concentration of calcium in the soil is from about 0.128 mM to about 5 mM and the pH is below about 7.0 until such time that the concentration of nickel in the above-ground tissues is over 1000 mg per kg gross dry weight of the above-ground tissues, and the concentration in the above-ground tissues of at least one other metal is achieved,

wherein the plant is cultivated in the soil.

16. (Once Amended) The metal recovery culture of claim 13, wherein the concentration of nickel in the above-ground tissues is at least 2.5% based on the gross dry weight of the above ground tissues.